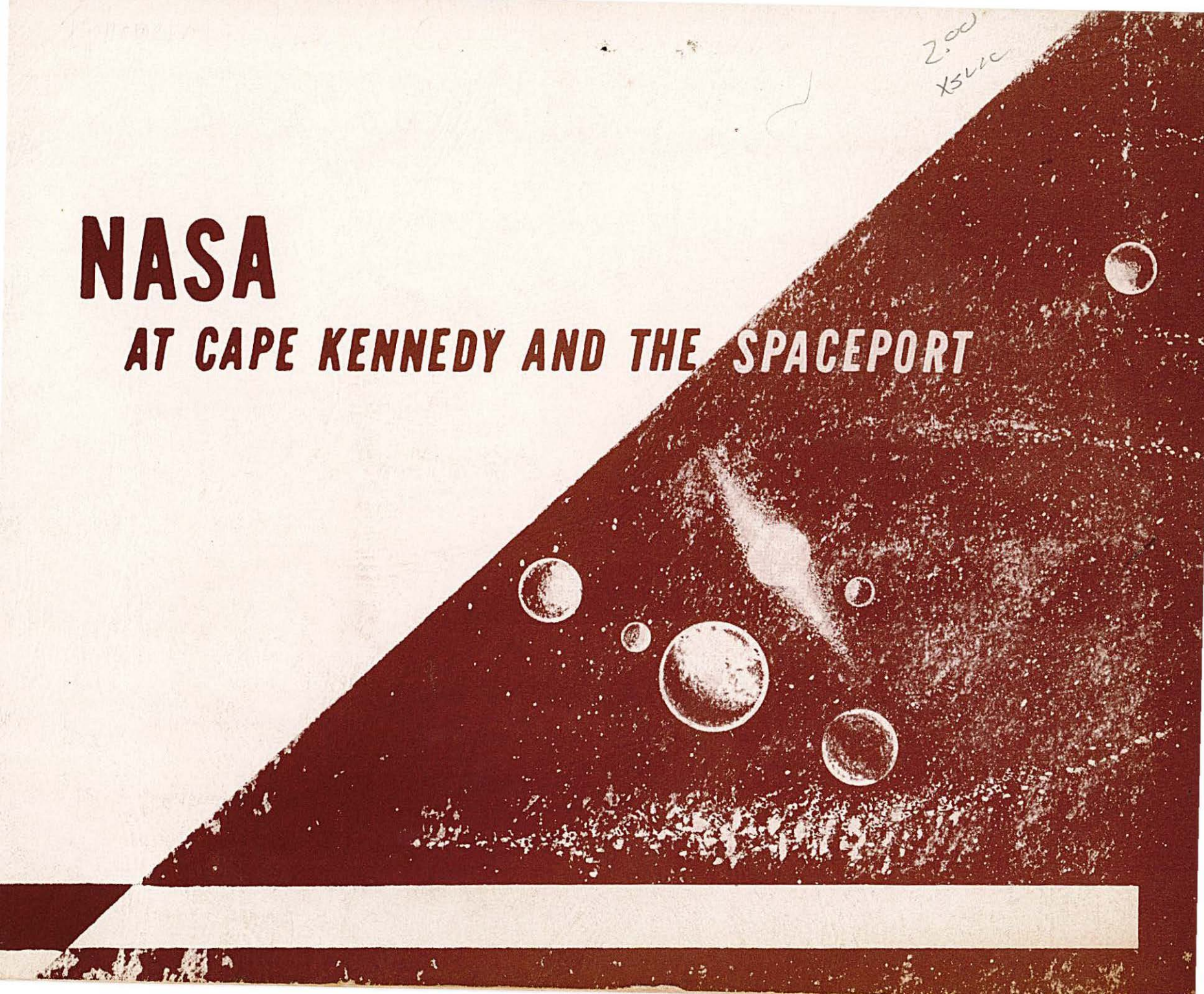
2.00
XSLLC

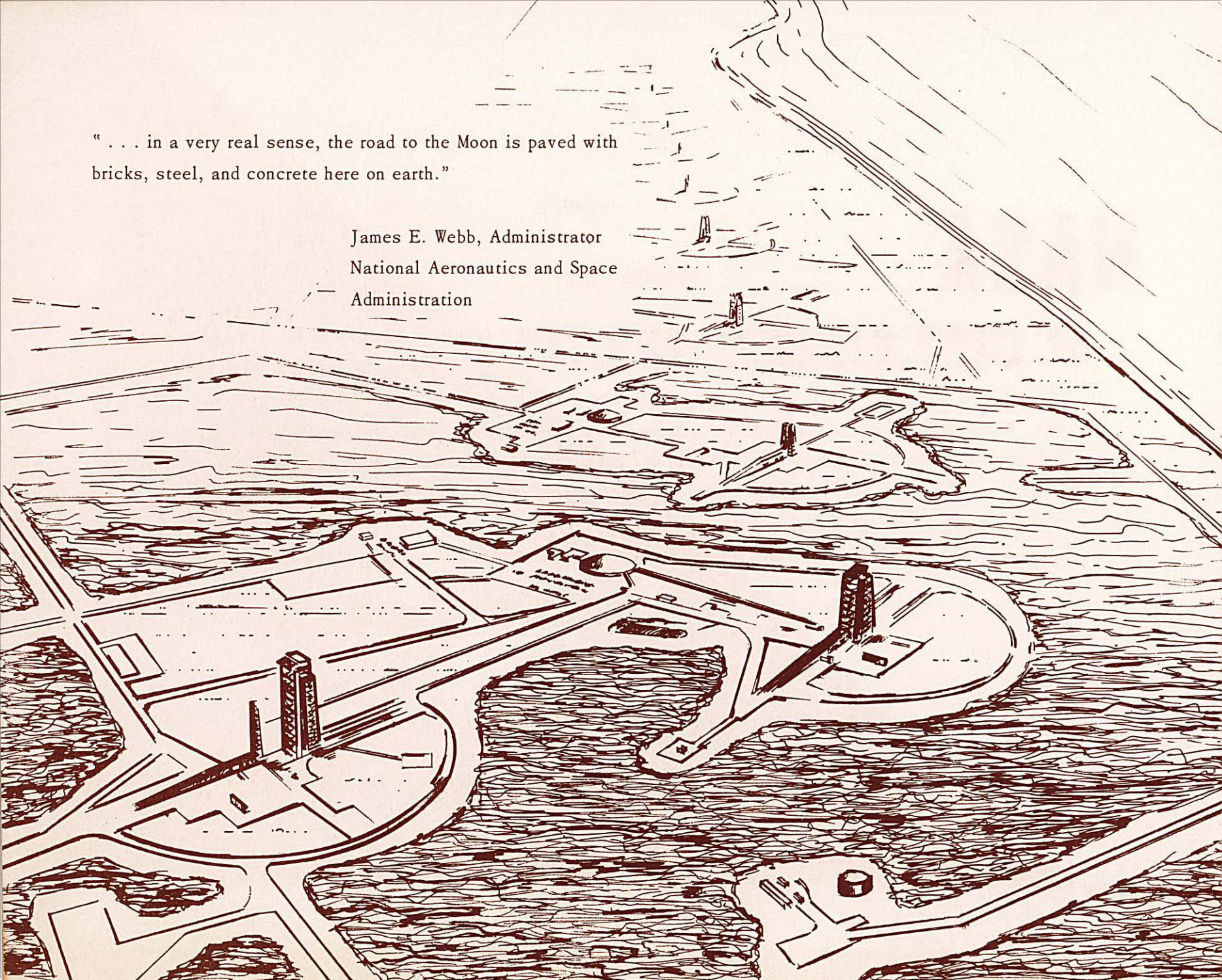
NASA

AT CAPE KENNEDY AND THE SPACEPORT



" . . . in a very real sense, the road to the Moon is paved with bricks, steel, and concrete here on earth."

James E. Webb, Administrator
National Aeronautics and Space
Administration



INTRODUCTION

I take great pleasure in welcoming you to the NASA facilities at Cape Kennedy and Merritt Island.

The offices, laboratories, and launch complexes which you will see represent an important phase of this nation's effort to achieve and maintain preeminence in all aspects of space research and exploration. We are proud of our part in this effort. Thousands of dedicated engineers, scientists, technicians, and support personnel here, both in government and industry, have labored ceaselessly to achieve many "firsts" in man's conquest of space. Their accomplishments confirm the total acceptance of the immense challenge of space exploration.

I sincerely hope you will share our pride in our facilities and our government-industry launch team.

Kurt H. Debus, Director

John F. Kennedy Space Center, NASA

HISTORY

The National Aeronautics and Space Administration was born on October 1, 1958. Historically, the establishment of NASA followed the launch of Sputnik I, the first man-made Earth satellite, which a year before had ushered in the Space Age.

The short history of NASA since 1958 has been a story of consolidating a national space program with government agencies, the aerospace industry, and the scientific community, some of whose people and programs had long roots in the progress of space exploration.

As early as 1946, the War Department recognized the need for a long range testing area for guided missiles and initiated a study to determine a suitable location. The logical choice for the missile test range was Cape Kennedy. This 15,000-acre spit of land jutting into the Atlantic Ocean off Florida's east coast provided an excellent site for launching missiles on long range trajectories without overflying populated land areas. The site was formally approved on July 8, 1947.

Shortly afterward, Congress authorized the construction and operation of the Air Force Eastern Test Range, which stretches from Cape Kennedy through the Bahamas, past the eastern tip of South America to Ascension Island, and on to the Indian Ocean, 10,000 miles distant. Although the Air Force operates the Range as the executive agency for the Department of Defense, all branches of the military have made use of its facilities.

Following the creation of NASA in 1958 to conduct America's program for the peaceful exploration of space, Cape Kennedy became the site of the John F. Kennedy Space Center, NASA, and field offices of the Manned Spacecraft Center, Marshall Space Flight Center, Goddard Space Flight Center, and Jet Propulsion Laboratory which is supported by NASA. With the orderly growth of the national space program, NASA has become the prime user of the Air Force Eastern Test Range. In 1965, the Kennedy Space Center, NASA, will occupy new facilities on adjacent Merritt Island, where enormously powerful space vehicles will be assembled and launched to carry astronauts to the Moon and back and to undertake other, even more challenging adventures in future years.

NASA MISSIONS AT CAPE KENNEDY AND THE SPACEPORT

THE JOHN F. KENNEDY SPACE CENTER, NASA, is responsible for developing and operating the spaceport on Merritt Island, and for the preparation and launch of heavy space vehicles, both manned and unmanned. These include the Saturn family of vehicles, the largest yet developed for NASA programs. Currently, flight tests are being conducted with the Saturn I which has achieved a phenomenal record of successful flights, including the orbiting of unmanned Apollo spacecraft and large meteoroid detection satellites. In 1966, flight tests of Saturn IB will begin. This rocket will place manned Apollo spacecraft in Earth orbit to develop flight procedures for manned missions to the Moon.

The new facilities on Merritt Island were designed to handle the giant Saturn V vehicle. This vehicle has been selected to launch the Apollo lunar landing spacecraft on its epochal journey to the Moon and back before the end of the decade.

The Center also provides maintenance, service, and general support for all NASA operations within the area.

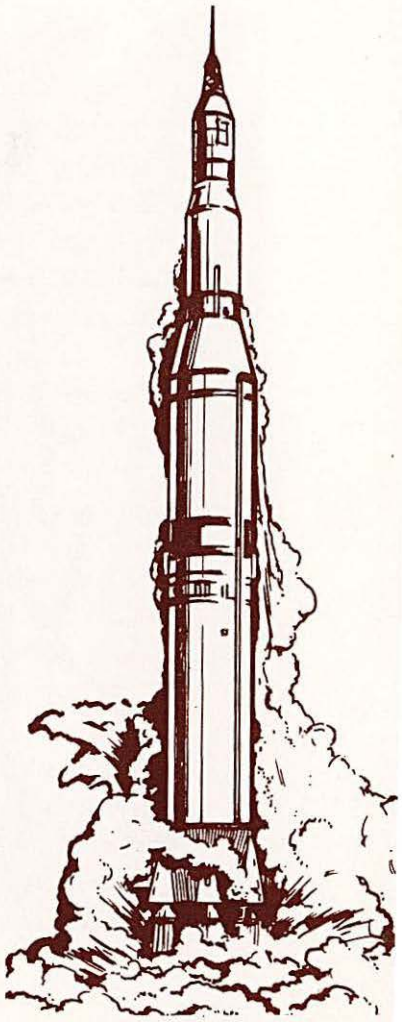
GODDARD SPACE FLIGHT CENTER'S LAUNCH OPERATIONS BRANCH is a field office of the NASA Center at Greenbelt, Maryland, and is responsible for launching many of NASA's unmanned satellites and space probes. The primary launch vehicles under its cognizance are the Thor/Delta, the Atlas/Agena, and the Atlas/Centaur.

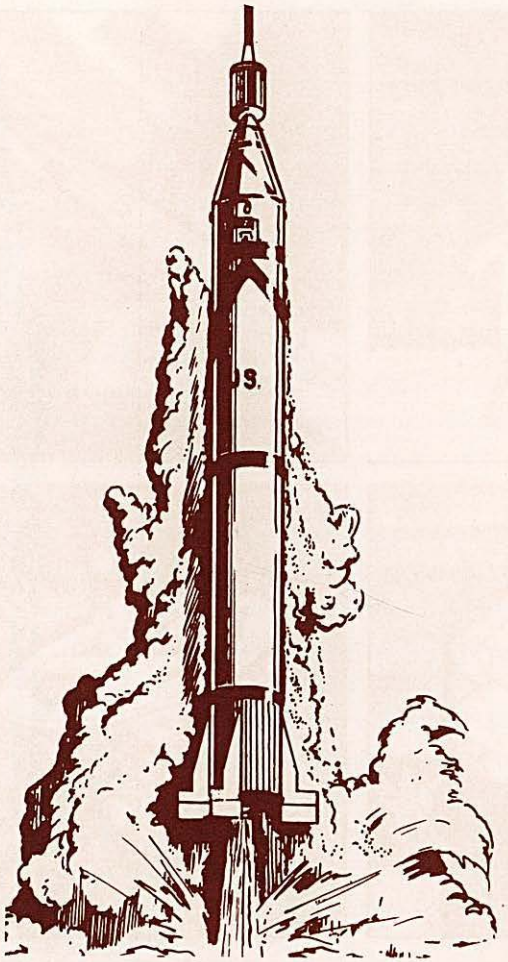
Since 1960, Goddard's Cape operations have launched more than half of all NASA's successful Earth satellites. Among these have been scientific satellites, meteorological satellites, communications satellites, and the first internationally sponsored satellite. Goddard's accomplishments also include the successful launching of Centaur, the world's first space launch vehicle to utilize liquid-hydrogen and liquid oxygen fuel.

THE MARSHALL SPACE FLIGHT CENTER field office represents the NASA Center at Huntsville, Alabama, which is responsible for design, development, fabrication, and static test of the Saturn family of heavy space vehicles.

THE MANNED SPACECRAFT CENTER field office represents the NASA Center at Houston, Texas, which is responsible for design, development, fabrication, and test of the Gemini capsule and its target vehicle. The Center has overall responsibility for the Apollo spacecraft and its related modules and for training astronauts for the Gemini and Apollo programs.

JET PROPULSION LABORATORY OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY also occupies facilities at Cape Kennedy. The Laboratory manages NASA's unmanned lunar, planetary, and interplanetary exploration programs. These programs include the Mariner planetary probes and the Ranger and Surveyor lunar probes designed to photograph and study the Moon's surface and composition.





LAUNCH VEHICLES

Launch vehicles used for space exploration missions at Cape Kennedy have a long history of development. Some major components of these vehicles evolved from basic military hardware developed and tested during the 1950's.

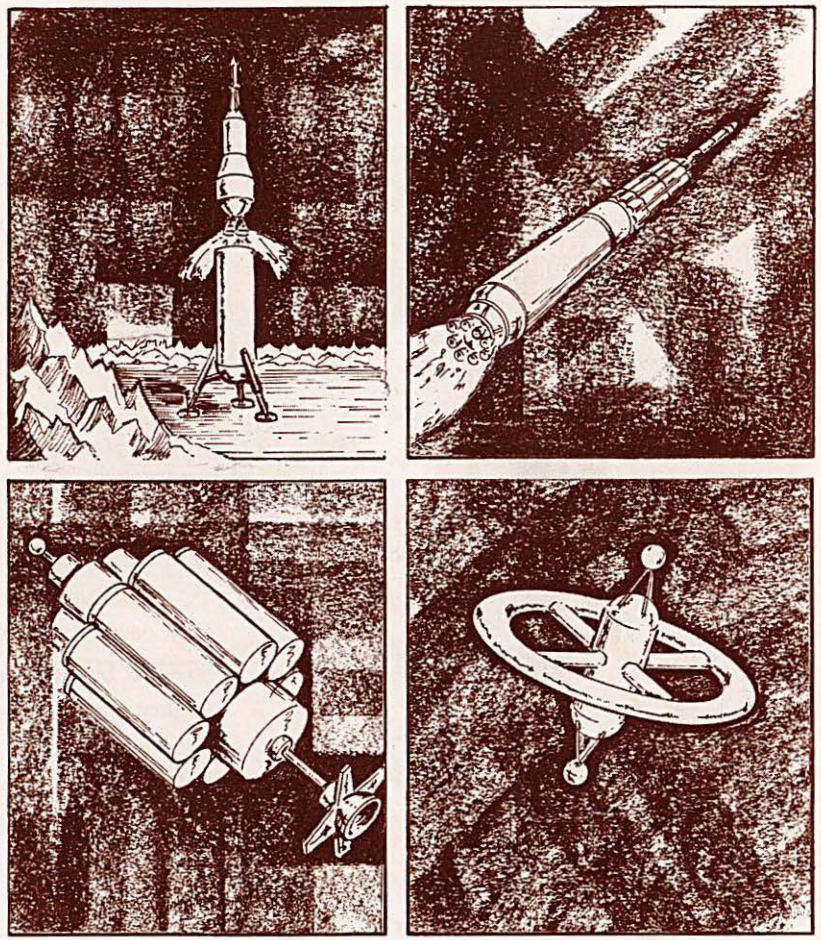
The first United States satellite, for instance, was orbited by an Army-developed Jupiter-C missile. The Thor/Delta, workhorse of NASA's unmanned spacecraft program, employs components developed by the Air Force and Navy. Mercury capsules used in this country's initial manned space flight effort were launched by Army and Air Force boosters. The Centaur, the world's first space vehicle to be powered by liquid-hydrogen and liquid-oxygen, is lifted to the edge of space by a modified Atlas.

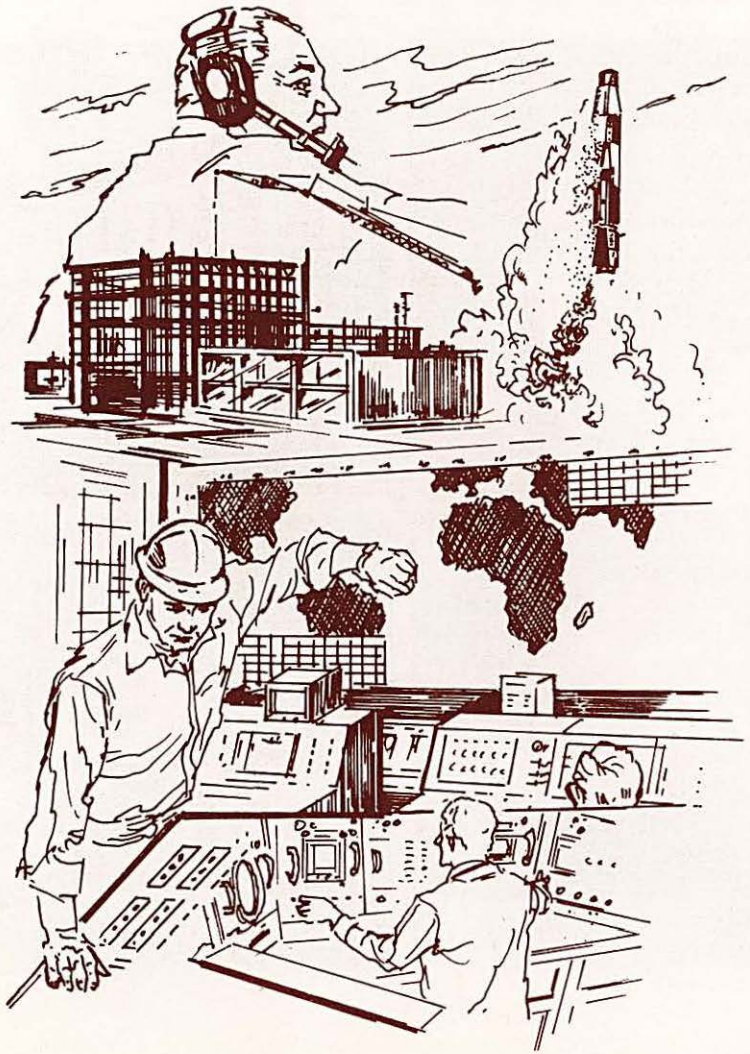
Technological exchange between military and scientific space programs will continue in the future. America's next man-in-space project, Gemini, will be boosted into orbit by a modified Air Force Titan II vehicle. The mighty Saturn class of vehicles, expressly developed by Marshall Space Flight Center for NASA's program of peaceful space exploration, evolved from the technological achievements of the early Redstone, Jupiter, and Juno programs which were directed by the Army.

FUTURE CONCEPTS

The Apollo project, while an ambitious and difficult task, is not an end in itself. Careful, long range planning will determine which future projects will be undertaken and when.

Someday, we may look upon the giant launch vehicles of today as the Model T's, Stanley Steamers, or even the early buggies of the Space Age.





THE HUMAN ELEMENT

Sometimes the drama of spectacular achievements in space overshadows the most important element in the space program--people. From people have come the ideas, skills, and initiative that have carried this nation in just a few short years to the threshold of history's most challenging adventure -- the exploration of space.

At Cape Kennedy and the Merritt Island spaceport, the human element has been molded by NASA into one of the greatest teams ever assembled for a peacetime endeavor. This team, more than 13,000 strong and representing the best launch talent in government and industry, is devoting its skills and talents to America's goal of space preeminence. Cooperating with them are thousands of Air Force Eastern Test Range personnel and Air Force associated contractor personnel who provide range and mission support to NASA.

The industrial roll at Cape Kennedy reads like a "Who's Who of American Industry", ranging from giants of the business world to the smallest companies whose products and services contribute to the overall effort. Working side-by-side in the buildings, laboratories, blockhouses, and on the launch pads, personnel of these companies and NASA are forging a common bond of cooperation for the long road ahead.

A GOOD PLACE TO WORK AND LIVE

The importance of Cape Kennedy and the Merritt Island spaceport is reflected in the growing stature of the surrounding communities. Only a few short years ago, the area was relatively undeveloped. The larger communities -- Titusville, Cocoa, Eau Gallie, and Melbourne -- attracted little attention from motorists traveling to the resorts of South Florida. Industry was practically non-existent, and commercial activity was confined primarily to citrus growing, cattle, and some tourist oriented business.

Today, the story is one of dynamic expansion and progress, spawned by the influx of thousands of space workers and their families. In the wake of this migration, new communities have sprung up almost overnight and the older ones have recorded phenomenal increases in population. This remarkable growth pattern, unexcelled anywhere else in the state, has resulted in new roads, hospitals, housing, business, and services of all types.

Paralleling community growth has been a corresponding increase in educational facilities. Graduate and undergraduate engineering programs are offered through Brevard Engineering College. The GENESYS program, administered by the University of Florida, provides engineering and scientific education on the masters and doctoral level. Similarly, programs leading to a baccalaureate degree in the arts, sciences, and engineering are offered through Brevard Junior College, Rollins College Extension, and the Florida Institute for Continuing University Studies. In the near future a new, four-year state university will be constructed between Orlando and Cape Kennedy.

The fact that nearly 75 per cent of the area's high school graduates continue on to higher education is indicative of the growing importance of education at this Space Capital of the Free World.

The area offers much in the way of recreation. Its moderate climate (average yearly temperature is 72.5 degrees), numerous waterways, and excellent beaches provide the opportunity for year-round outdoor activity, whether the interest is fishing, water sports, or barbecuing a steak on the patio. For those who prefer night life, the area's many fine restaurants and clubs offer good food and a wide variety of entertainment.

FACTS AND FIGURES

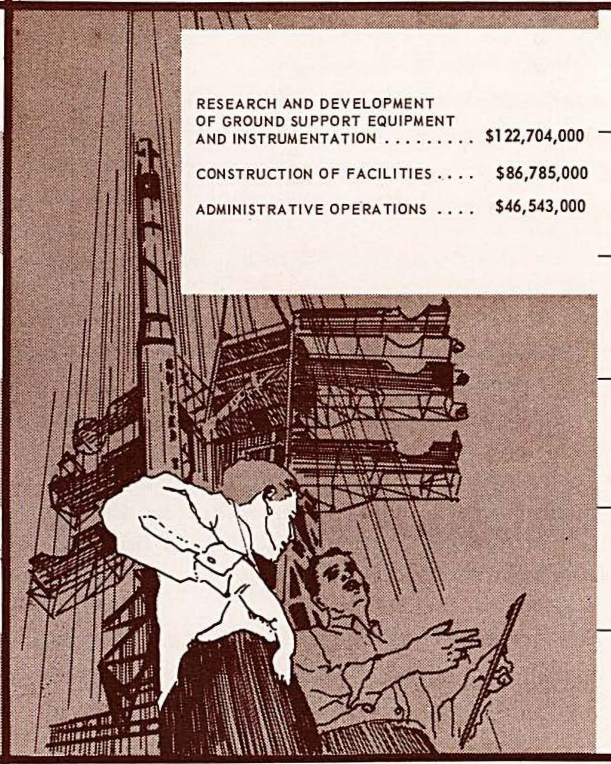
MANPOWER

CAREER CIVIL SERVICE PERSONNEL	2,465
SUPPORT CONTRACTOR PERSONNEL	2,453
FLIGHT HARDWARE CONTRACTOR PERSONNEL	3,403
CORPS OF ENGINEERS PERSONNEL	493
JET PROPULSION LABORATORY (NASA) PERSONNEL	35
CONSTRUCTION WORKERS AND EQUIPMENT INSTALLERS	5,194

NASA AND NASA RELATED MANPOWER JANUARY 1, 1965 14,043

BUDGET

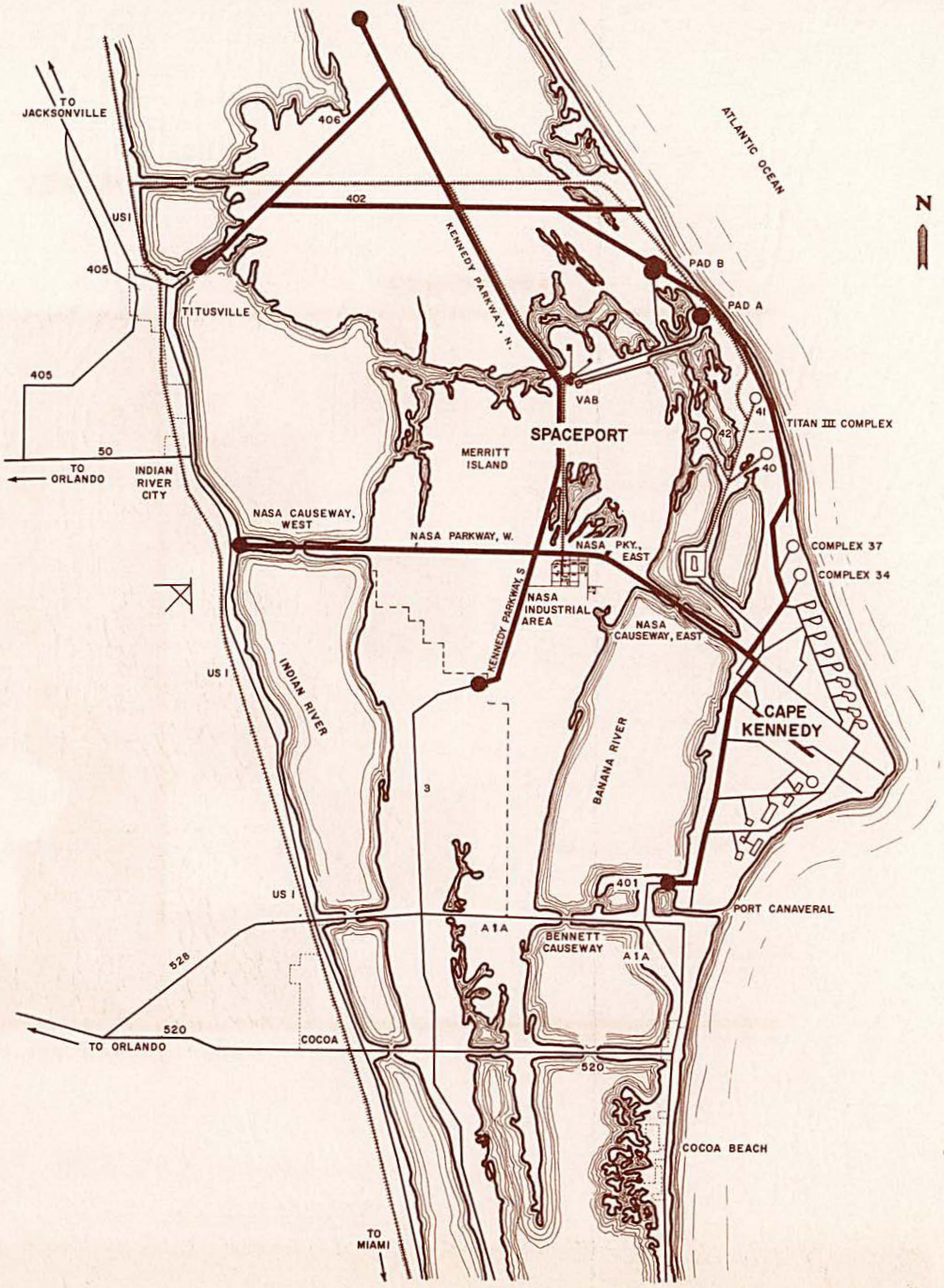
RESEARCH AND DEVELOPMENT OF GROUND SUPPORT EQUIPMENT AND INSTRUMENTATION	$122,704,000
CONSTRUCTION OF FACILITIES	$86,785,000
ADMINISTRATIVE OPERATIONS	$46,543,000



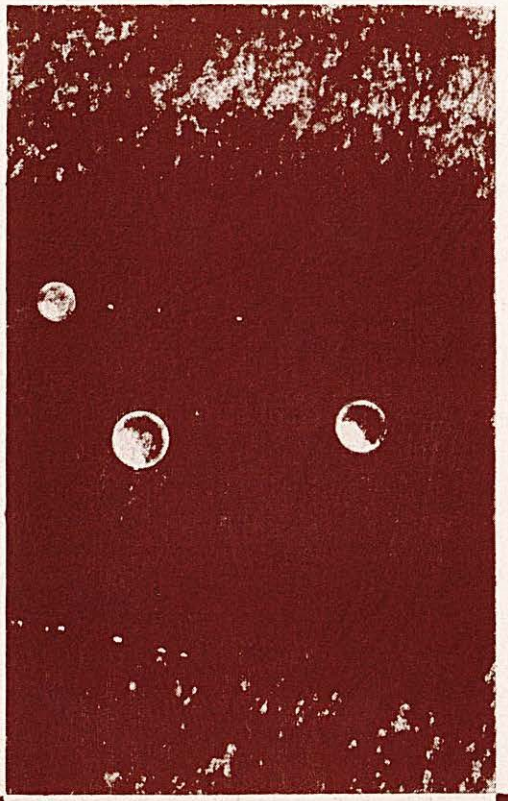
TOTAL BUDGET (FISCAL YEAR 1965) $256,032,000

AREA MAP

NASA facilities at Cape Kennedy and the Merritt Island spaceport can be viewed by the public during drive-through tours of the space installations. The Cape Kennedy tour is available Sundays only between the hours of 1 and 4 P.M. The Merritt Island spaceport tour is available Sundays and holidays, 1 to 4 P.M.



JOHN F. KENNEDY SPACE CENTER



Office of Public Affairs, 853-9260
John F. Kennedy Space Center, NASA